Application No. 09/599,036
Attorney Docket No. 22-0134

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS

1. (Original) A method for providing a variable hop cycle beam laydown, the method comprising:

transmitting first downlink beam energy for first cells according to a first hop cycle;

transmitting second downlink beam energy for second cells according to a second hop cycle different than the first hop cycle; and

transmitting transition downlink beam energy for transition cells according to a transition hop cycle for transitioning between the first hop cycle and the second hop cycle.

2. (Original) The method of claim 1, wherein transmitting first downlink beam energy comprises transmitting downlink beam energy for a first hop pair, wherein transmitting second downlink beam energy comprises transmitting downlink beam energy for a second hop pair, and wherein transmitting transition downlink beam energy comprises transmitting downlink beam energy for a transition hop pair.

3. (Original) The method of claim 1, wherein transmitting transition downlink beam energy comprises transmitting power gated downlink frames.

4. (Original) The method of claim 1, wherein each transmitting step comprises transmitting at at least a first frequency and first polarization.

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5. (Original) The method of claim 1, wherein transmitting second downlink energy comprises transmitting second downlink beam energy according to a second hop cycle that provides additional bandwidth to meet bandwidth needed for one of the second cells.

6. (Original) The method of claim 1, further comprising the step of reading frame headers that define the first hop cycle, second hop cycle, and transition hop cycle.

7. (Original) A variable hop cycle beam laydown comprising:

first cells supported by a first hop cycle;

second cells supported by a second hop cycle different than the first hop cycle; and

transition cells supported by a transition hop cycle for transitioning between the first hop cycle and the second hop cycle.

8. (Original) The laydown of claim 7, wherein the first cells comprise a first hop pair, the second cells comprise a second hop pair, and the transition cells comprise a third hop pair.

9. (Original) The laydown of claim 8, wherein the first hop cycle is a 50-50 hop cycle.

10. (Original) The laydown of claim 9, wherein the second hop cycle is a 75-25 hop cycle and wherein the transition hop cycle is a 50-25 hop cycle.

11. (Original) The laydown of claim 10, wherein the 50-25 hop cycle comprises downlink beam energy in a first transition cell 50 percent of a time period, downlink beam energy in a second transition cell 25 percent of the time period, and a power gated downlink beam 25 percent of the time period.

12. (Cancelled)

13. (Original) The laydown of claim 7, wherein the first, second, and transition hop cycles comprise downlink beam energy of at least a first frequency and polarization.

14. (Original) The laydown of claim 7, wherein the first, second, and transition cells are adjacent cells.

15. (Currently amended) The laydown of claim 7, wherein the first, second, and transition cells [[cells]] are non-adjacent cells.

16. (Original) The laydown of claim 7, wherein at least one of the first, second, and transition cells are adjacent cells.

17. (Original) Apparatus for generating a variable hop cycle beam laydown, the apparatus comprising:

a waveform generator producing a first downlink beam, second downlink beam, and a transition downlink beam;

at least one switch directing the first downlink beam between first feed paths to first cells, directing the second downlink beam between second feed paths to second cells, and directing the transition downlink beam between third feed paths to transition cells;

at least one feed path selection input coupled to the at least one switch; and

a memory for storing downlink beam type definitions that direct the feed path selection input to control the switch according to a first hop cycle, a second hop cycle different than the first hop cycle, and a transition hop cycle.

18. (Original) The apparatus of claim 17, further comprising a power gating circuit coupled to the waveform generator for gating power in the transition downlink beam.

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19. (Original) The apparatus of claim 18, wherein the first, second, and transition downlink beams comprise frames with a header field and a payload field.

20. (Original) The apparatus of claim 17, wherein the first hop cycle directs additional bandwidth to one of the first cells to meet bandwidth need.

21. (Original) The apparatus of claim 20, wherein the first hop cycle is a 75-25 hop cycle.

22. (Original) The apparatus of claim 21, wherein the second hop cycle is a 50-50 hop cycle and wherein the transition hop cycle is a 75-25 hop cycle.

23. (Cancelled)

24. (Original) The apparatus of claim 17, wherein at least one of the first cells, second cells, and transition cells are adjacent.

25. (Original) The apparatus of claim 17, wherein at least one of the first cells, second cells, and transition cells are non-adjacent.

B1 cont

26. (New) A variable hop cycle beam laydown comprising:

first cells supported by a first hop cycle;

second cells supported by a second hop cycle different than the first hop cycle; and

transition cells supported by a transition hop cycle for transitioning between the first hop cycle and the second hop cycle,

wherein said transition hop cycle comprises downlink beam energy in a first transition cell a first percent of a time period, downlink beam energy in a second transition cell a second percent of the time period, and a power gated downlink beam for a remaining percent of the time period.

27. (New) Apparatus for generating a variable hop cycle beam laydown, the apparatus comprising:

a waveform generator producing a first downlink beam, a second downlink beam, and a transition downlink beam;

at least one switch directing the first downlink beam between first feed paths to first cells, directing the second downlink beam between second feed paths to second cells, and directing the transition downlink beam between third feed paths to transition cells;

at least one feed path selection input coupled to the at least one switch;

a memory for storing downlink beam type definitions that direct the feed path selection input to control the switch according to a first hop cycle, a second hop cycle different than the first hop cycle, and a transition hop cycle,

wherein said transition hop cycle specifies transmission of downlink beam energy in a first transition cell a first percent of a time period, specifies downlink beam energy in a second transition cell a second percent of the time period, and specifies a power gated downlink transition beam a remaining percent of the time period; and

a power gating circuit coupled to the waveform generator for gating power in the transition downlink beam.